

### **Abstract**

The present invention provides a prediction method for lipidosis caused by a compound, which comprises detecting (a) phenylacetylglutamine and/or phenylacetylglutamine, or an  
5 optionally chosen metabolic intermediate in the metabolic pathway from phenylalanine to phenylacetylglutamine or phenylacetylglutamine, and (b) hippuric acid or an optionally chosen metabolic intermediate in the metabolic pathway from phenylalanine to hippuric acid, in a sample collected from a  
10 mammal receiving the compound or a mammalian cell or tissue culture exposed to the compound, and predicting the compound's potential for inducing lipidosis with the quantitative ratio of the two as the index. The present invention also provides a diagnostic method for lipidosis and diseases related thereto,  
15 comprising detecting (a) and (b) above in a sample collected from a mammal, and making a diagnosis with the quantitative ratio of the two as the index.